

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**Rancho Mission Viejo Riding Park Improvements Project**  
**Orange County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	16.30	Acre	16.30	710,028.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

Project Characteristics -

Land Use - 2.3 ac for the Arizona Crossing and Streambank Restoration + 14 ac for the CAFO system installation = 16.3 ac total

Construction Phase - Assume Arizona Crossing removal is 4 months per City's construction details

Assume installation of CAFO system is 24 months per City's construction details

Assume construction would avoid the wet season (December-March)

Off-road Equipment - Per City's construction details

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Other construction equipment include soil processor and hydro seed sprayer

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Per City's construction details

Off-road Equipment - Assume 8 hours of use for conservative analysis

Construction equipment input per Fuscoe Engineering construction details

Trips and VMT - Assume 25 construction workers per City's construction details

Assume 146 trips for import of rip rap and native plants. 146 trips / 54 days of phase 3 = 3 vendor trips per day

Assume 18 vendor trips per day for CAFO materials

Demolition - 2.03 short tons per cy concrete

700 cy \* 2.03 = 1421 tons of debris

Grading - 1000 cy poorly compacted soil export for Streambank Restoration

430 cy imported for Streambank Restoration

3,200 cy import for grading of drainage patterns (e.g., earthen berm)

Vehicle Trips - Assume 0.005 trips per day (2 trips per year) associated with annual maintenance of the CAFO system

No additional operational trips associated with project

Road Dust - Assume 90% paved roads (Rancho Mission Viejo Riding Park roads are not paved)

Area Coating -

Water And Wastewater -  $Eto * (water\ need\ value) * area\ (sf) * 0.62 / 0.75$

$0.2 * 0.8 * 87,120 * 0.62 / 0.75 = 11,523.072\ gals/year$

Round to 11,530 gals/year

Operational Off-Road Equipment - Two pumps and two flow meters (one for each CAFO tank) per Fuscoe Engineering construction details

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	300.00	153.00

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tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	30.00	174.00
tblConstructionPhase	NumDays	10.00	34.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	AcresOfGrading	174.00	14.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	430.00
tblGrading	MaterialImported	0.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks
tblOffRoadEquipment	PhaseName		Site Preparation for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks

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tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Arizona Crossing Removal
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	90
tblSolidWaste	SolidWasteGenerationRate	1.40	0.00
tblTripsAndVMT	HaulingTripNumber	141.00	0.00
tblTripsAndVMT	HaulingTripNumber	125.00	0.00
tblTripsAndVMT	HaulingTripNumber	454.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	116.00	18.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	298.00	50.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	5.0000e-003
tblWater	OutdoorWaterUseRate	19,421,146.00	11,530.00

**2.0 Emissions Summary**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1299	37.3699	28.3499	0.0533	8.7260	1.9486	10.6745	3.8441	1.8086	5.6527	0.0000	5,181.513 2	5,181.513 2	1.2116	0.0000	5,211.802 2
2021	1.7140	17.9142	12.7280	0.0296	0.6463	0.7070	1.3533	0.1578	0.6504	0.8082	0.0000	2,883.276 5	2,883.276 5	0.7821	0.0000	2,902.829 8
2022	1.9006	19.0746	13.9519	0.0349	0.6739	0.6897	1.3636	0.1813	0.6409	0.8222	0.0000	3,391.018 9	3,391.018 9	0.7853	0.0000	3,410.651 5
<b>Maximum</b>	<b>4.1299</b>	<b>37.3699</b>	<b>28.3499</b>	<b>0.0533</b>	<b>8.7260</b>	<b>1.9486</b>	<b>10.6745</b>	<b>3.8441</b>	<b>1.8086</b>	<b>5.6527</b>	<b>0.0000</b>	<b>5,181.513 2</b>	<b>5,181.513 2</b>	<b>1.2116</b>	<b>0.0000</b>	<b>5,211.802 2</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1299	37.3699	28.3499	0.0533	8.7260	1.9486	10.6745	3.8441	1.8086	5.6527	0.0000	5,181.513 2	5,181.513 2	1.2116	0.0000	5,211.802 2
2021	1.7140	17.9142	12.7280	0.0296	0.6463	0.7070	1.3533	0.1578	0.6504	0.8082	0.0000	2,883.276 4	2,883.276 4	0.7821	0.0000	2,902.829 8
2022	1.9006	19.0746	13.9519	0.0349	0.6739	0.6897	1.3636	0.1813	0.6409	0.8222	0.0000	3,391.018 9	3,391.018 9	0.7853	0.0000	3,410.651 5
<b>Maximum</b>	<b>4.1299</b>	<b>37.3699</b>	<b>28.3499</b>	<b>0.0533</b>	<b>8.7260</b>	<b>1.9486</b>	<b>10.6745</b>	<b>3.8441</b>	<b>1.8086</b>	<b>5.6527</b>	<b>0.0000</b>	<b>5,181.513 2</b>	<b>5,181.513 2</b>	<b>1.2116</b>	<b>0.0000</b>	<b>5,211.802 2</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-004	3.7000e-004	1.2900e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5148	0.5148	2.0000e-005		0.5153
Offroad	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.069 1	1,246.069 1	0.0570		1,247.494 4
<b>Total</b>	<b>0.6924</b>	<b>5.5061</b>	<b>7.4535</b>	<b>0.0132</b>	<b>0.0484</b>	<b>0.2697</b>	<b>0.3181</b>	<b>4.9000e-003</b>	<b>0.2697</b>	<b>0.2746</b>		<b>1,246.587 5</b>	<b>1,246.587 5</b>	<b>0.0570</b>	<b>0.0000</b>	<b>1,248.013 4</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-004	3.7000e-004	1.2900e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5148	0.5148	2.0000e-005		0.5153
Offroad	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.0691	1,246.0691	0.0570		1,247.4944
<b>Total</b>	<b>0.6924</b>	<b>5.5061</b>	<b>7.4535</b>	<b>0.0132</b>	<b>0.0484</b>	<b>0.2697</b>	<b>0.3181</b>	<b>4.9000e-003</b>	<b>0.2697</b>	<b>0.2746</b>		<b>1,246.5875</b>	<b>1,246.5875</b>	<b>0.0570</b>	<b>0.0000</b>	<b>1,248.0134</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Arizona Crossing Removal	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation for Streambank Restoration	Site Preparation	7/1/2020	8/17/2020	5	34	
3	Grading and Planting for Streambank Restoration	Grading	8/18/2020	10/30/2020	5	54	
4	Trenching for CAFO Storm Drains	Trenching	11/1/2020	11/30/2020	5	21	
5	Excavation for CAFO Tanks	Grading	4/1/2021	11/30/2021	5	174	
6	Installation of CAFO Tanks	Building Construction	4/1/2022	11/1/2022	5	153	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Arizona Crossing Removal	Concrete/Industrial Saws	1	8.00	81	0.73
Arizona Crossing Removal	Excavators	1	8.00	158	0.38
Arizona Crossing Removal	Rubber Tired Dozers	1	8.00	247	0.40
Arizona Crossing Removal	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation for Streambank Restoration	Excavators	1	8.00	158	0.38
Site Preparation for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Planting for Streambank Restoration	Bore/Drill Rigs	1	8.00	221	0.50
Grading and Planting for Streambank Restoration	Plate Compactors	1	8.00	8	0.43
Grading and Planting for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Grading and Planting for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching for CAFO Storm Drains	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching for CAFO Storm Drains	Trenchers	1	8.00	78	0.50
Excavation for CAFO Tanks	Excavators	1	8.00	158	0.38
Excavation for CAFO Tanks	Graders	2	8.00	187	0.41
Excavation for CAFO Tanks	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Installation of CAFO Tanks	Cement and Mortar Mixers	1	8.00	9	0.56
Installation of CAFO Tanks	Graders	2	8.00	187	0.41
Installation of CAFO Tanks	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Installation of CAFO Tanks	Welders	1	8.00	46	0.45

**Trips and VMT**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Arizona Crossing Removal	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation for Streambank Restoration	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Planting for Streambank Restoration	7	50.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching for CAFO Storm Drains	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Excavation for CAFO Tanks	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Installation of CAFO Tanks	7	50.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Arizona Crossing Removal - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5204	0.0000	1.5204	0.2302	0.0000	0.2302			0.0000			0.0000
Off-Road	1.9522	19.1486	13.3657	0.0231		1.0031	1.0031		0.9387	0.9387		2,220.8941	2,220.8941	0.5642		2,234.9977
<b>Total</b>	<b>1.9522</b>	<b>19.1486</b>	<b>13.3657</b>	<b>0.0231</b>	<b>1.5204</b>	<b>1.0031</b>	<b>2.5235</b>	<b>0.2302</b>	<b>0.9387</b>	<b>1.1689</b>		<b>2,220.8941</b>	<b>2,220.8941</b>	<b>0.5642</b>		<b>2,234.9977</b>

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**3.2 Arizona Crossing Removal - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5204	0.0000	1.5204	0.2302	0.0000	0.2302			0.0000			0.0000
Off-Road	1.9522	19.1486	13.3657	0.0231		1.0031	1.0031		0.9387	0.9387	0.0000	2,220.8941	2,220.8941	0.5642		2,234.9977
<b>Total</b>	<b>1.9522</b>	<b>19.1486</b>	<b>13.3657</b>	<b>0.0231</b>	<b>1.5204</b>	<b>1.0031</b>	<b>2.5235</b>	<b>0.2302</b>	<b>0.9387</b>	<b>1.1689</b>	<b>0.0000</b>	<b>2,220.8941</b>	<b>2,220.8941</b>	<b>0.5642</b>		<b>2,234.9977</b>

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**3.2 Arizona Crossing Removal - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0878	0.0000	6.0878	3.3175	0.0000	3.3175			0.0000			0.0000
Off-Road	1.7435	17.9552	11.9588	0.0199		0.9381	0.9381		0.8630	0.8630		1,928.9980	1,928.9980	0.6239		1,944.5949
<b>Total</b>	<b>1.7435</b>	<b>17.9552</b>	<b>11.9588</b>	<b>0.0199</b>	<b>6.0878</b>	<b>0.9381</b>	<b>7.0259</b>	<b>3.3175</b>	<b>0.8630</b>	<b>4.1805</b>		<b>1,928.9980</b>	<b>1,928.9980</b>	<b>0.6239</b>		<b>1,944.5949</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0878	0.0000	6.0878	3.3175	0.0000	3.3175			0.0000			0.0000
Off-Road	1.7435	17.9552	11.9588	0.0199		0.9381	0.9381		0.8630	0.8630	0.0000	1,928.9979	1,928.9979	0.6239		1,944.5949
<b>Total</b>	<b>1.7435</b>	<b>17.9552</b>	<b>11.9588</b>	<b>0.0199</b>	<b>6.0878</b>	<b>0.9381</b>	<b>7.0259</b>	<b>3.3175</b>	<b>0.8630</b>	<b>4.1805</b>	<b>0.0000</b>	<b>1,928.9979</b>	<b>1,928.9979</b>	<b>0.6239</b>		<b>1,944.5949</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.3 Site Preparation for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0623	0.0000	6.0623	3.3146	0.0000	3.3146			0.0000			0.0000
Off-Road	1.8161	19.3161	10.9822	0.0246		0.9325	0.9325		0.8587	0.8587		2,373.1658	2,373.1658	0.7600		2,392.1648
<b>Total</b>	<b>1.8161</b>	<b>19.3161</b>	<b>10.9822</b>	<b>0.0246</b>	<b>6.0623</b>	<b>0.9325</b>	<b>6.9947</b>	<b>3.3146</b>	<b>0.8587</b>	<b>4.1733</b>		<b>2,373.1658</b>	<b>2,373.1658</b>	<b>0.7600</b>		<b>2,392.1648</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0100	0.3124	0.0904	7.3000e-004	0.0192	1.6600e-003	0.0208	5.5200e-003	1.5900e-003	7.1000e-003		79.3398	79.3398	6.9100e-003		79.5126
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2272</b>	<b>0.4455</b>	<b>1.6031</b>	<b>5.9000e-003</b>	<b>0.5781</b>	<b>5.3600e-003</b>	<b>0.5834</b>	<b>0.1537</b>	<b>4.9900e-003</b>	<b>0.1587</b>		<b>595.1504</b>	<b>595.1504</b>	<b>0.0187</b>		<b>595.6174</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0623	0.0000	6.0623	3.3146	0.0000	3.3146			0.0000			0.0000
Off-Road	1.8161	19.3161	10.9822	0.0246		0.9325	0.9325		0.8587	0.8587	0.0000	2,373.1658	2,373.1658	0.7600		2,392.1647
<b>Total</b>	<b>1.8161</b>	<b>19.3161</b>	<b>10.9822</b>	<b>0.0246</b>	<b>6.0623</b>	<b>0.9325</b>	<b>6.9947</b>	<b>3.3146</b>	<b>0.8587</b>	<b>4.1733</b>	<b>0.0000</b>	<b>2,373.1658</b>	<b>2,373.1658</b>	<b>0.7600</b>		<b>2,392.1647</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0100	0.3124	0.0904	7.3000e-004	0.0192	1.6600e-003	0.0208	5.5200e-003	1.5900e-003	7.1000e-003		79.3398	79.3398	6.9100e-003		79.5126
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2272</b>	<b>0.4455</b>	<b>1.6031</b>	<b>5.9000e-003</b>	<b>0.5781</b>	<b>5.3600e-003</b>	<b>0.5834</b>	<b>0.1537</b>	<b>4.9900e-003</b>	<b>0.1587</b>		<b>595.1504</b>	<b>595.1504</b>	<b>0.0187</b>		<b>595.6174</b>

**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0483	10.1120	9.4754	0.0127		0.6836	0.6836		0.6289	0.6289		1,229.1176	1,229.1176	0.3975		1,239.0556
<b>Total</b>	<b>1.0483</b>	<b>10.1120</b>	<b>9.4754</b>	<b>0.0127</b>		<b>0.6836</b>	<b>0.6836</b>		<b>0.6289</b>	<b>0.6289</b>		<b>1,229.1176</b>	<b>1,229.1176</b>	<b>0.3975</b>		<b>1,239.0556</b>



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0483	10.1120	9.4754	0.0127		0.6836	0.6836		0.6289	0.6289	0.0000	1,229.1176	1,229.1176	0.3975		1,239.0556
<b>Total</b>	<b>1.0483</b>	<b>10.1120</b>	<b>9.4754</b>	<b>0.0127</b>		<b>0.6836</b>	<b>0.6836</b>		<b>0.6289</b>	<b>0.6289</b>	<b>0.0000</b>	<b>1,229.1176</b>	<b>1,229.1176</b>	<b>0.3975</b>		<b>1,239.0556</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.5 Trenching for CAFO Storm Drains - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2171	0.1330	1.5127	5.1700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		515.8106	515.8106	0.0118		516.1048
<b>Total</b>	<b>0.2171</b>	<b>0.1330</b>	<b>1.5127</b>	<b>5.1700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>515.8106</b>	<b>515.8106</b>	<b>0.0118</b>		<b>516.1048</b>

**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	9.5300e-003	0.0000	9.5300e-003			0.0000			0.0000
Off-Road	1.5097	17.7942	11.3267	0.0246		0.7034	0.7034		0.6471	0.6471		2,385.3604	2,385.3604	0.7715		2,404.6472
<b>Total</b>	<b>1.5097</b>	<b>17.7942</b>	<b>11.3267</b>	<b>0.0246</b>	<b>0.0874</b>	<b>0.7034</b>	<b>0.7908</b>	<b>9.5300e-003</b>	<b>0.6471</b>	<b>0.6566</b>		<b>2,385.3604</b>	<b>2,385.3604</b>	<b>0.7715</b>		<b>2,404.6472</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2043	0.1200	1.4013	4.9900e-003	0.5589	3.6200e-003	0.5625	0.1482	3.3300e-003	0.1516		497.9161	497.9161	0.0107		498.1827
<b>Total</b>	<b>0.2043</b>	<b>0.1200</b>	<b>1.4013</b>	<b>4.9900e-003</b>	<b>0.5589</b>	<b>3.6200e-003</b>	<b>0.5625</b>	<b>0.1482</b>	<b>3.3300e-003</b>	<b>0.1516</b>		<b>497.9161</b>	<b>497.9161</b>	<b>0.0107</b>		<b>498.1827</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	9.5300e-003	0.0000	9.5300e-003			0.0000			0.0000
Off-Road	1.5097	17.7942	11.3267	0.0246		0.7034	0.7034		0.6471	0.6471	0.0000	2,385.3603	2,385.3603	0.7715		2,404.6472
<b>Total</b>	<b>1.5097</b>	<b>17.7942</b>	<b>11.3267</b>	<b>0.0246</b>	<b>0.0874</b>	<b>0.7034</b>	<b>0.7908</b>	<b>9.5300e-003</b>	<b>0.6471</b>	<b>0.6566</b>	<b>0.0000</b>	<b>2,385.3603</b>	<b>2,385.3603</b>	<b>0.7715</b>		<b>2,404.6472</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.6 Excavation for CAFO Tanks - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2043	0.1200	1.4013	4.9900e-003	0.5589	3.6200e-003	0.5625	0.1482	3.3300e-003	0.1516		497.9161	497.9161	0.0107		498.1827
<b>Total</b>	<b>0.2043</b>	<b>0.1200</b>	<b>1.4013</b>	<b>4.9900e-003</b>	<b>0.5589</b>	<b>3.6200e-003</b>	<b>0.5625</b>	<b>0.1482</b>	<b>3.3300e-003</b>	<b>0.1516</b>		<b>497.9161</b>	<b>497.9161</b>	<b>0.0107</b>		<b>498.1827</b>

**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6596	17.3732	12.1616	0.0258		0.6830	0.6830		0.6346	0.6346		2,444.2688	2,444.2688	0.7372		2,462.6977
<b>Total</b>	<b>1.6596</b>	<b>17.3732</b>	<b>12.1616</b>	<b>0.0258</b>		<b>0.6830</b>	<b>0.6830</b>		<b>0.6346</b>	<b>0.6346</b>		<b>2,444.2688</b>	<b>2,444.2688</b>	<b>0.7372</b>		<b>2,462.6977</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0474	1.5927	0.4844	4.2800e-003	0.1150	3.1700e-003	0.1182	0.0331	3.0300e-003	0.0361		467.2607	467.2607	0.0385		468.2226
Worker	0.1936	0.1087	1.3059	4.8100e-003	0.5589	3.5500e-003	0.5624	0.1482	3.2700e-003	0.1515		479.4894	479.4894	9.6800e-003		479.7313
<b>Total</b>	<b>0.2410</b>	<b>1.7014</b>	<b>1.7903</b>	<b>9.0900e-003</b>	<b>0.6739</b>	<b>6.7200e-003</b>	<b>0.6806</b>	<b>0.1813</b>	<b>6.3000e-003</b>	<b>0.1876</b>		<b>946.7501</b>	<b>946.7501</b>	<b>0.0482</b>		<b>947.9538</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6596	17.3732	12.1616	0.0258		0.6830	0.6830		0.6346	0.6346	0.0000	2,444.2688	2,444.2688	0.7372		2,462.6977
<b>Total</b>	<b>1.6596</b>	<b>17.3732</b>	<b>12.1616</b>	<b>0.0258</b>		<b>0.6830</b>	<b>0.6830</b>		<b>0.6346</b>	<b>0.6346</b>	<b>0.0000</b>	<b>2,444.2688</b>	<b>2,444.2688</b>	<b>0.7372</b>		<b>2,462.6977</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**3.7 Installation of CAFO Tanks - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0474	1.5927	0.4844	4.2800e-003	0.1150	3.1700e-003	0.1182	0.0331	3.0300e-003	0.0361		467.2607	467.2607	0.0385		468.2226
Worker	0.1936	0.1087	1.3059	4.8100e-003	0.5589	3.5500e-003	0.5624	0.1482	3.2700e-003	0.1515		479.4894	479.4894	9.6800e-003		479.7313
<b>Total</b>	<b>0.2410</b>	<b>1.7014</b>	<b>1.7903</b>	<b>9.0900e-003</b>	<b>0.6739</b>	<b>6.7200e-003</b>	<b>0.6806</b>	<b>0.1813</b>	<b>6.3000e-003</b>	<b>0.1876</b>		<b>946.7501</b>	<b>946.7501</b>	<b>0.0482</b>		<b>947.9538</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-004	3.7000e-004	1.2900e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5148	0.5148	2.0000e-005		0.5153
Unmitigated	1.0000e-004	3.7000e-004	1.2900e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5148	0.5148	2.0000e-005		0.5153

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.08	0.00	0.00	168	168
Total	0.08	0.00	0.00	168	168

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Unmitigated	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
<b>Total</b>	<b>0.0367</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>1.0000e-005</b>		<b>3.8000e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
<b>Total</b>	<b>0.0367</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>1.0000e-005</b>		<b>3.8000e-003</b>

**7.0 Water Detail**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pumps	2	8.00	260	84	0.74	Electrical

**UnMitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Pumps	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.0691	1,246.0691	0.0570		1,247.4944
<b>Total</b>	<b>0.6556</b>	<b>5.5057</b>	<b>7.4506</b>	<b>0.0132</b>		<b>0.2697</b>	<b>0.2697</b>		<b>0.2697</b>	<b>0.2697</b>		<b>1,246.0691</b>	<b>1,246.0691</b>	<b>0.0570</b>		<b>1,247.4944</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Rancho Mission Viejo Riding Park Improvements Project - Orange County, Winter

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Rancho Mission Viejo Riding Park Improvements Project - Orange County, Annual

**Rancho Mission Viejo Riding Park Improvements Project  
Orange County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	16.30	Acre	16.30	710,028.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Annual

Project Characteristics -

Land Use - 2.3 ac for the Arizona Crossing and Streambank Restoration + 14 ac for the CAFO system installation = 16.3 ac total

Construction Phase - Assume Arizona Crossing removal is 4 months per City's construction details

Assume installation of CAFO system is 24 months per City's construction details

Assume construction would avoid the wet season (December-March)

Off-road Equipment - Per City's construction details

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Other construction equipment include soil processor and hydro seed sprayer

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Per City's construction details

Off-road Equipment - Assume 8 hours of use for conservative analysis

Construction equipment input per Fuscoe Engineering construction details

Trips and VMT - Assume 25 construction workers per City's construction details

Assume 146 trips for import of rip rap and native plants. 146 trips / 54 days of phase 3 = 3 vendor trips per day

Assume 18 vendor trips per day for CAFO materials

Demolition - 2.03 short tons per cy concrete

700 cy \* 2.03 = 1421 tons of debris

Grading - 1000 cy poorly compacted soil export for Streambank Restoration

430 cy imported for Streambank Restoration

3,200 cy import for grading of drainage patterns (e.g., earthen berm)

Vehicle Trips - Assume 0.005 trips per day (2 trips per year) associated with annual maintenance of the CAFO system

No additional operational trips associated with project

Road Dust - Assume 90% paved roads (Rancho Mission Viejo Riding Park roads are not paved)

Area Coating -

Water And Wastewater -  $Eto * (water\ need\ value) * area\ (sf) * 0.62 / 0.75$

$0.2 * 0.8 * 87,120 * 0.62 / 0.75 = 11,523.072\ gals/year$

Round to 11,530 gals/year

Operational Off-Road Equipment - Two pumps and two flow meters (one for each CAFO tank) per Fuscoe Engineering construction details

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	300.00	153.00

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Annual

tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	30.00	174.00
tblConstructionPhase	NumDays	10.00	34.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	AcresOfGrading	174.00	14.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	430.00
tblGrading	MaterialImported	0.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks
tblOffRoadEquipment	PhaseName		Site Preparation for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks

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tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Arizona Crossing Removal
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	90
tblSolidWaste	SolidWasteGenerationRate	1.40	0.00
tblTripsAndVMT	HaulingTripNumber	141.00	0.00
tblTripsAndVMT	HaulingTripNumber	125.00	0.00
tblTripsAndVMT	HaulingTripNumber	454.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	116.00	18.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	298.00	50.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	5.0000e-003
tblWater	OutdoorWaterUseRate	19,421,146.00	11,530.00

**2.0 Emissions Summary**



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1220	1.1418	0.8353	1.7300e-003	0.3183	0.0586	0.3769	0.1577	0.0541	0.2119	0.0000	152.3475	152.3475	0.0380	0.0000	153.2976
2021	0.1473	1.5588	1.1104	2.5800e-003	0.0554	0.0615	0.1169	0.0135	0.0566	0.0701	0.0000	228.1625	228.1625	0.0617	0.0000	229.7061
2022	0.1438	1.4616	1.0683	2.6800e-003	0.0507	0.0528	0.1034	0.0137	0.0490	0.0627	0.0000	236.3183	236.3183	0.0544	0.0000	237.6794
<b>Maximum</b>	<b>0.1473</b>	<b>1.5588</b>	<b>1.1104</b>	<b>2.6800e-003</b>	<b>0.3183</b>	<b>0.0615</b>	<b>0.3769</b>	<b>0.1577</b>	<b>0.0566</b>	<b>0.2119</b>	<b>0.0000</b>	<b>236.3183</b>	<b>236.3183</b>	<b>0.0617</b>	<b>0.0000</b>	<b>237.6794</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1220	1.1418	0.8353	1.7300e-003	0.3183	0.0586	0.3769	0.1577	0.0541	0.2119	0.0000	152.3474	152.3474	0.0380	0.0000	153.2975
2021	0.1473	1.5588	1.1104	2.5800e-003	0.0554	0.0615	0.1169	0.0135	0.0566	0.0701	0.0000	228.1623	228.1623	0.0617	0.0000	229.7058
2022	0.1438	1.4616	1.0683	2.6800e-003	0.0507	0.0528	0.1034	0.0137	0.0490	0.0627	0.0000	236.3181	236.3181	0.0544	0.0000	237.6792
<b>Maximum</b>	<b>0.1473</b>	<b>1.5588</b>	<b>1.1104</b>	<b>2.6800e-003</b>	<b>0.3183</b>	<b>0.0615</b>	<b>0.3769</b>	<b>0.1577</b>	<b>0.0566</b>	<b>0.2119</b>	<b>0.0000</b>	<b>236.3181</b>	<b>236.3181</b>	<b>0.0617</b>	<b>0.0000</b>	<b>237.6792</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2020	9-30-2020	0.8993	0.8993
2	10-1-2020	12-31-2020	0.3569	0.3569
4	4-1-2021	6-30-2021	0.6368	0.6368
5	7-1-2021	9-30-2021	0.6438	0.6438
6	10-1-2021	12-31-2021	0.4276	0.4276
8	4-1-2022	6-30-2022	0.6807	0.6807
9	7-1-2022	9-30-2022	0.6882	0.6882
		Highest	0.8993	0.8993

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7000e-003	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-005	5.0000e-005	1.7000e-004	0.0000	6.2900e-003	0.0000	6.2900e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0615	0.0615	0.0000	0.0000	0.0615
Offroad	0.0852	0.7157	0.9686	1.7100e-003		0.0351	0.0351		0.0351	0.0351	0.0000	146.9539	146.9539	6.7200e-003	0.0000	147.1220
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0408	0.0408	0.0000	0.0000	0.0410
<b>Total</b>	<b>0.0919</b>	<b>0.7158</b>	<b>0.9690</b>	<b>1.7100e-003</b>	<b>6.2900e-003</b>	<b>0.0351</b>	<b>0.0414</b>	<b>6.4000e-004</b>	<b>0.0351</b>	<b>0.0357</b>	<b>0.0000</b>	<b>147.0566</b>	<b>147.0566</b>	<b>6.7200e-003</b>	<b>0.0000</b>	<b>147.2249</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7000e-003	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-005	5.0000e-005	1.7000e-004	0.0000	6.2900e-003	0.0000	6.2900e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0615	0.0615	0.0000	0.0000	0.0615
Offroad	0.0852	0.7157	0.9686	1.7100e-003		0.0351	0.0351		0.0351	0.0351	0.0000	146.9539	146.9539	6.7200e-003	0.0000	147.1220
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0408	0.0408	0.0000	0.0000	0.0410
<b>Total</b>	<b>0.0919</b>	<b>0.7158</b>	<b>0.9690</b>	<b>1.7100e-003</b>	<b>6.2900e-003</b>	<b>0.0351</b>	<b>0.0414</b>	<b>6.4000e-004</b>	<b>0.0351</b>	<b>0.0357</b>	<b>0.0000</b>	<b>147.0566</b>	<b>147.0566</b>	<b>6.7200e-003</b>	<b>0.0000</b>	<b>147.2249</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Arizona Crossing Removal	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation for Streambank Restoration	Site Preparation	7/1/2020	8/17/2020	5	34	
3	Grading and Planting for Streambank Restoration	Grading	8/18/2020	10/30/2020	5	54	
4	Trenching for CAFO Storm Drains	Trenching	11/1/2020	11/30/2020	5	21	
5	Excavation for CAFO Tanks	Grading	4/1/2021	11/30/2021	5	174	
6	Installation of CAFO Tanks	Building Construction	4/1/2022	11/1/2022	5	153	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Arizona Crossing Removal	Concrete/Industrial Saws	1	8.00	81	0.73
Arizona Crossing Removal	Excavators	1	8.00	158	0.38
Arizona Crossing Removal	Rubber Tired Dozers	1	8.00	247	0.40
Arizona Crossing Removal	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation for Streambank Restoration	Excavators	1	8.00	158	0.38
Site Preparation for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Planting for Streambank Restoration	Bore/Drill Rigs	1	8.00	221	0.50
Grading and Planting for Streambank Restoration	Plate Compactors	1	8.00	8	0.43
Grading and Planting for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Grading and Planting for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching for CAFO Storm Drains	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching for CAFO Storm Drains	Trenchers	1	8.00	78	0.50
Excavation for CAFO Tanks	Excavators	1	8.00	158	0.38
Excavation for CAFO Tanks	Graders	2	8.00	187	0.41
Excavation for CAFO Tanks	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Installation of CAFO Tanks	Cement and Mortar Mixers	1	8.00	9	0.56
Installation of CAFO Tanks	Graders	2	8.00	187	0.41
Installation of CAFO Tanks	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Installation of CAFO Tanks	Welders	1	8.00	46	0.45

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Arizona Crossing Removal	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation for Streambank Restoration	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Planting for Streambank Restoration	7	50.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching for CAFO Storm Drains	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Excavation for CAFO Tanks	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Installation of CAFO Tanks	7	50.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Arizona Crossing Removal - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0152	0.0000	0.0152	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.1915	0.1337	2.3000e-004		0.0100	0.0100		9.3900e-003	9.3900e-003	0.0000	20.1476	20.1476	5.1200e-003	0.0000	20.2756
<b>Total</b>	<b>0.0195</b>	<b>0.1915</b>	<b>0.1337</b>	<b>2.3000e-004</b>	<b>0.0152</b>	<b>0.0100</b>	<b>0.0252</b>	<b>2.3000e-003</b>	<b>9.3900e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>20.1476</b>	<b>20.1476</b>	<b>5.1200e-003</b>	<b>0.0000</b>	<b>20.2756</b>

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**3.2 Arizona Crossing Removal - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	1.3700e-003	0.0155	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.7508	4.7508	1.1000e-004	0.0000	4.7535
<b>Total</b>	<b>1.9500e-003</b>	<b>1.3700e-003</b>	<b>0.0155</b>	<b>5.0000e-005</b>	<b>5.4900e-003</b>	<b>4.0000e-005</b>	<b>5.5300e-003</b>	<b>1.4600e-003</b>	<b>3.0000e-005</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>4.7508</b>	<b>4.7508</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.7535</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0152	0.0000	0.0152	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.1915	0.1337	2.3000e-004		0.0100	0.0100		9.3900e-003	9.3900e-003	0.0000	20.1476	20.1476	5.1200e-003	0.0000	20.2755
<b>Total</b>	<b>0.0195</b>	<b>0.1915</b>	<b>0.1337</b>	<b>2.3000e-004</b>	<b>0.0152</b>	<b>0.0100</b>	<b>0.0252</b>	<b>2.3000e-003</b>	<b>9.3900e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>20.1476</b>	<b>20.1476</b>	<b>5.1200e-003</b>	<b>0.0000</b>	<b>20.2755</b>



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**3.2 Arizona Crossing Removal - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	1.3700e-003	0.0155	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.7508	4.7508	1.1000e-004	0.0000	4.7535
<b>Total</b>	<b>1.9500e-003</b>	<b>1.3700e-003</b>	<b>0.0155</b>	<b>5.0000e-005</b>	<b>5.4900e-003</b>	<b>4.0000e-005</b>	<b>5.5300e-003</b>	<b>1.4600e-003</b>	<b>3.0000e-005</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>4.7508</b>	<b>4.7508</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.7535</b>

**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1035	0.0000	0.1035	0.0564	0.0000	0.0564	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0296	0.3052	0.2033	3.4000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	29.7493	29.7493	9.6200e-003	0.0000	29.9898
<b>Total</b>	<b>0.0296</b>	<b>0.3052</b>	<b>0.2033</b>	<b>3.4000e-004</b>	<b>0.1035</b>	<b>0.0160</b>	<b>0.1194</b>	<b>0.0564</b>	<b>0.0147</b>	<b>0.0711</b>	<b>0.0000</b>	<b>29.7493</b>	<b>29.7493</b>	<b>9.6200e-003</b>	<b>0.0000</b>	<b>29.9898</b>

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**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.3200e-003	0.0264	9.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	8.0764	8.0764	1.8000e-004	0.0000	8.0810
<b>Total</b>	<b>3.3100e-003</b>	<b>2.3200e-003</b>	<b>0.0264</b>	<b>9.0000e-005</b>	<b>9.3300e-003</b>	<b>6.0000e-005</b>	<b>9.3900e-003</b>	<b>2.4800e-003</b>	<b>6.0000e-005</b>	<b>2.5400e-003</b>	<b>0.0000</b>	<b>8.0764</b>	<b>8.0764</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>8.0810</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1035	0.0000	0.1035	0.0564	0.0000	0.0564	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0296	0.3052	0.2033	3.4000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	29.7492	29.7492	9.6200e-003	0.0000	29.9898
<b>Total</b>	<b>0.0296</b>	<b>0.3052</b>	<b>0.2033</b>	<b>3.4000e-004</b>	<b>0.1035</b>	<b>0.0160</b>	<b>0.1194</b>	<b>0.0564</b>	<b>0.0147</b>	<b>0.0711</b>	<b>0.0000</b>	<b>29.7492</b>	<b>29.7492</b>	<b>9.6200e-003</b>	<b>0.0000</b>	<b>29.9898</b>

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**3.3 Site Preparation for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.3200e-003	0.0264	9.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	8.0764	8.0764	1.8000e-004	0.0000	8.0810
<b>Total</b>	<b>3.3100e-003</b>	<b>2.3200e-003</b>	<b>0.0264</b>	<b>9.0000e-005</b>	<b>9.3300e-003</b>	<b>6.0000e-005</b>	<b>9.3900e-003</b>	<b>2.4800e-003</b>	<b>6.0000e-005</b>	<b>2.5400e-003</b>	<b>0.0000</b>	<b>8.0764</b>	<b>8.0764</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>8.0810</b>

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1637	0.0000	0.1637	0.0895	0.0000	0.0895	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0490	0.5215	0.2965	6.6000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	58.1283	58.1283	0.0186	0.0000	58.5937
<b>Total</b>	<b>0.0490</b>	<b>0.5215</b>	<b>0.2965</b>	<b>6.6000e-004</b>	<b>0.1637</b>	<b>0.0252</b>	<b>0.1889</b>	<b>0.0895</b>	<b>0.0232</b>	<b>0.1127</b>	<b>0.0000</b>	<b>58.1283</b>	<b>58.1283</b>	<b>0.0186</b>	<b>0.0000</b>	<b>58.5937</b>

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**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.5900e-003	2.3400e-003	2.0000e-005	5.1000e-004	4.0000e-005	5.5000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	1.9718	1.9718	1.6000e-004	0.0000	1.9759
Worker	5.2600e-003	3.6900e-003	0.0419	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	9.0000e-005	4.0300e-003	0.0000	12.8272	12.8272	2.9000e-004	0.0000	12.8345
<b>Total</b>	<b>5.5200e-003</b>	<b>0.0123</b>	<b>0.0442</b>	<b>1.6000e-004</b>	<b>0.0153</b>	<b>1.4000e-004</b>	<b>0.0155</b>	<b>4.0900e-003</b>	<b>1.3000e-004</b>	<b>4.2200e-003</b>	<b>0.0000</b>	<b>14.7989</b>	<b>14.7989</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>14.8103</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1637	0.0000	0.1637	0.0895	0.0000	0.0895	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0490	0.5215	0.2965	6.6000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	58.1282	58.1282	0.0186	0.0000	58.5936
<b>Total</b>	<b>0.0490</b>	<b>0.5215</b>	<b>0.2965</b>	<b>6.6000e-004</b>	<b>0.1637</b>	<b>0.0252</b>	<b>0.1889</b>	<b>0.0895</b>	<b>0.0232</b>	<b>0.1127</b>	<b>0.0000</b>	<b>58.1282</b>	<b>58.1282</b>	<b>0.0186</b>	<b>0.0000</b>	<b>58.5936</b>

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**3.4 Grading and Planting for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.5900e-003	2.3400e-003	2.0000e-005	5.1000e-004	4.0000e-005	5.5000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	1.9718	1.9718	1.6000e-004	0.0000	1.9759
Worker	5.2600e-003	3.6900e-003	0.0419	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	9.0000e-005	4.0300e-003	0.0000	12.8272	12.8272	2.9000e-004	0.0000	12.8345
<b>Total</b>	<b>5.5200e-003</b>	<b>0.0123</b>	<b>0.0442</b>	<b>1.6000e-004</b>	<b>0.0153</b>	<b>1.4000e-004</b>	<b>0.0155</b>	<b>4.0900e-003</b>	<b>1.3000e-004</b>	<b>4.2200e-003</b>	<b>0.0000</b>	<b>14.7989</b>	<b>14.7989</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>14.8103</b>

**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1062	0.0995	1.3000e-004		7.1800e-003	7.1800e-003		6.6000e-003	6.6000e-003	0.0000	11.7079	11.7079	3.7900e-003	0.0000	11.8026
<b>Total</b>	<b>0.0110</b>	<b>0.1062</b>	<b>0.0995</b>	<b>1.3000e-004</b>		<b>7.1800e-003</b>	<b>7.1800e-003</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>	<b>0.0000</b>	<b>11.7079</b>	<b>11.7079</b>	<b>3.7900e-003</b>	<b>0.0000</b>	<b>11.8026</b>

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**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0500e-003	1.4300e-003	0.0163	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	4.9883	4.9883	1.1000e-004	0.0000	4.9912
<b>Total</b>	<b>2.0500e-003</b>	<b>1.4300e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>5.7600e-003</b>	<b>4.0000e-005</b>	<b>5.8000e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>4.9883</b>	<b>4.9883</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.9912</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1062	0.0995	1.3000e-004		7.1800e-003	7.1800e-003		6.6000e-003	6.6000e-003	0.0000	11.7079	11.7079	3.7900e-003	0.0000	11.8025
<b>Total</b>	<b>0.0110</b>	<b>0.1062</b>	<b>0.0995</b>	<b>1.3000e-004</b>		<b>7.1800e-003</b>	<b>7.1800e-003</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>	<b>0.0000</b>	<b>11.7079</b>	<b>11.7079</b>	<b>3.7900e-003</b>	<b>0.0000</b>	<b>11.8025</b>

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**3.5 Trenching for CAFO Storm Drains - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0500e-003	1.4300e-003	0.0163	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	4.9883	4.9883	1.1000e-004	0.0000	4.9912
<b>Total</b>	<b>2.0500e-003</b>	<b>1.4300e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>5.7600e-003</b>	<b>4.0000e-005</b>	<b>5.8000e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>4.9883</b>	<b>4.9883</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.9912</b>

**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6000e-003	0.0000	7.6000e-003	8.3000e-004	0.0000	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1313	1.5481	0.9854	2.1400e-003		0.0612	0.0612		0.0563	0.0563	0.0000	188.2647	188.2647	0.0609	0.0000	189.7870
<b>Total</b>	<b>0.1313</b>	<b>1.5481</b>	<b>0.9854</b>	<b>2.1400e-003</b>	<b>7.6000e-003</b>	<b>0.0612</b>	<b>0.0688</b>	<b>8.3000e-004</b>	<b>0.0563</b>	<b>0.0571</b>	<b>0.0000</b>	<b>188.2647</b>	<b>188.2647</b>	<b>0.0609</b>	<b>0.0000</b>	<b>189.7870</b>

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**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	0.0107	0.1250	4.4000e-004	0.0478	3.1000e-004	0.0481	0.0127	2.9000e-004	0.0130	0.0000	39.8977	39.8977	8.5000e-004	0.0000	39.9191
<b>Total</b>	<b>0.0159</b>	<b>0.0107</b>	<b>0.1250</b>	<b>4.4000e-004</b>	<b>0.0478</b>	<b>3.1000e-004</b>	<b>0.0481</b>	<b>0.0127</b>	<b>2.9000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>39.8977</b>	<b>39.8977</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>39.9191</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6000e-003	0.0000	7.6000e-003	8.3000e-004	0.0000	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1313	1.5481	0.9854	2.1400e-003		0.0612	0.0612		0.0563	0.0563	0.0000	188.2645	188.2645	0.0609	0.0000	189.7867
<b>Total</b>	<b>0.1313</b>	<b>1.5481</b>	<b>0.9854</b>	<b>2.1400e-003</b>	<b>7.6000e-003</b>	<b>0.0612</b>	<b>0.0688</b>	<b>8.3000e-004</b>	<b>0.0563</b>	<b>0.0571</b>	<b>0.0000</b>	<b>188.2645</b>	<b>188.2645</b>	<b>0.0609</b>	<b>0.0000</b>	<b>189.7867</b>



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**3.6 Excavation for CAFO Tanks - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	0.0107	0.1250	4.4000e-004	0.0478	3.1000e-004	0.0481	0.0127	2.9000e-004	0.0130	0.0000	39.8977	39.8977	8.5000e-004	0.0000	39.9191
<b>Total</b>	<b>0.0159</b>	<b>0.0107</b>	<b>0.1250</b>	<b>4.4000e-004</b>	<b>0.0478</b>	<b>3.1000e-004</b>	<b>0.0481</b>	<b>0.0127</b>	<b>2.9000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>39.8977</b>	<b>39.8977</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>39.9191</b>

**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1270	1.3291	0.9304	1.9800e-003		0.0523	0.0523		0.0486	0.0486	0.0000	169.6314	169.6314	0.0512	0.0000	170.9103
<b>Total</b>	<b>0.1270</b>	<b>1.3291</b>	<b>0.9304</b>	<b>1.9800e-003</b>		<b>0.0523</b>	<b>0.0523</b>		<b>0.0486</b>	<b>0.0486</b>	<b>0.0000</b>	<b>169.6314</b>	<b>169.6314</b>	<b>0.0512</b>	<b>0.0000</b>	<b>170.9103</b>

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**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5300e-003	0.1240	0.0355	3.3000e-004	8.6700e-003	2.4000e-004	8.9100e-003	2.5000e-003	2.3000e-004	2.7300e-003	0.0000	32.9033	32.9033	2.6000e-003	0.0000	32.9684
Worker	0.0133	8.5400e-003	0.1024	3.7000e-004	0.0420	2.7000e-004	0.0423	0.0112	2.5000e-004	0.0114	0.0000	33.7837	33.7837	6.8000e-004	0.0000	33.8007
<b>Total</b>	<b>0.0168</b>	<b>0.1325</b>	<b>0.1379</b>	<b>7.0000e-004</b>	<b>0.0507</b>	<b>5.1000e-004</b>	<b>0.0512</b>	<b>0.0137</b>	<b>4.8000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>66.6869</b>	<b>66.6869</b>	<b>3.2800e-003</b>	<b>0.0000</b>	<b>66.7691</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1270	1.3291	0.9304	1.9800e-003		0.0523	0.0523		0.0486	0.0486	0.0000	169.6312	169.6312	0.0512	0.0000	170.9101
<b>Total</b>	<b>0.1270</b>	<b>1.3291</b>	<b>0.9304</b>	<b>1.9800e-003</b>		<b>0.0523</b>	<b>0.0523</b>		<b>0.0486</b>	<b>0.0486</b>	<b>0.0000</b>	<b>169.6312</b>	<b>169.6312</b>	<b>0.0512</b>	<b>0.0000</b>	<b>170.9101</b>

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**3.7 Installation of CAFO Tanks - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5300e-003	0.1240	0.0355	3.3000e-004	8.6700e-003	2.4000e-004	8.9100e-003	2.5000e-003	2.3000e-004	2.7300e-003	0.0000	32.9033	32.9033	2.6000e-003	0.0000	32.9684
Worker	0.0133	8.5400e-003	0.1024	3.7000e-004	0.0420	2.7000e-004	0.0423	0.0112	2.5000e-004	0.0114	0.0000	33.7837	33.7837	6.8000e-004	0.0000	33.8007
<b>Total</b>	<b>0.0168</b>	<b>0.1325</b>	<b>0.1379</b>	<b>7.0000e-004</b>	<b>0.0507</b>	<b>5.1000e-004</b>	<b>0.0512</b>	<b>0.0137</b>	<b>4.8000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>66.6869</b>	<b>66.6869</b>	<b>3.2800e-003</b>	<b>0.0000</b>	<b>66.7691</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-005	5.0000e-005	1.7000e-004	0.0000	6.2900e-003	0.0000	6.2900e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0615	0.0615	0.0000	0.0000	0.0615
Unmitigated	1.0000e-005	5.0000e-005	1.7000e-004	0.0000	6.2900e-003	0.0000	6.2900e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0615	0.0615	0.0000	0.0000	0.0615

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.08	0.00	0.00	168	168
Total	0.08	0.00	0.00	168	168

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.7000e-003	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004
Unmitigated	6.7000e-003	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004
<b>Total</b>	<b>6.7000e-003</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.3000e-004
<b>Total</b>	<b>6.7000e-003</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

**7.0 Water Detail**



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**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0408	0.0000	0.0000	0.0410
Unmitigated	0.0408	0.0000	0.0000	0.0410

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.01153	0.0408	0.0000	0.0000	0.0410
<b>Total</b>		<b>0.0408</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0410</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.01153	0.0408	0.0000	0.0000	0.0410
<b>Total</b>		<b>0.0408</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0410</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Rancho Mission Viejo Riding Park Improvements Project - Orange County, Annual

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pumps	2	8.00	260	84	0.74	Electrical

**UnMitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Pumps	0.0852	0.7157	0.9686	1.7100e-003		0.0351	0.0351		0.0351	0.0351	0.0000	146.9539	146.9539	6.7200e-003	0.0000	147.1220
<b>Total</b>	<b>0.0852</b>	<b>0.7157</b>	<b>0.9686</b>	<b>1.7100e-003</b>		<b>0.0351</b>	<b>0.0351</b>		<b>0.0351</b>	<b>0.0351</b>	<b>0.0000</b>	<b>146.9539</b>	<b>146.9539</b>	<b>6.7200e-003</b>	<b>0.0000</b>	<b>147.1220</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**Rancho Mission Viejo Riding Park Improvements Project**  
**Orange County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	16.30	Acre	16.30	710,028.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

Project Characteristics -

Land Use - 2.3 ac for the Arizona Crossing and Streambank Restoration + 14 ac for the CAFO system installation = 16.3 ac total

Construction Phase - Assume Arizona Crossing removal is 4 months per City's construction details

Assume installation of CAFO system is 24 months per City's construction details

Assume construction would avoid the wet season (December-March)

Off-road Equipment - Per City's construction details

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Other construction equipment include soil processor and hydro seed sprayer

Off-road Equipment - Per Fuscoe Engineering's construction details

Off-road Equipment - Per City's construction details

Off-road Equipment - Assume 8 hours of use for conservative analysis

Construction equipment input per Fuscoe Engineering construction details

Trips and VMT - Assume 25 construction workers per City's construction details

Assume 146 trips for import of rip rap and native plants. 146 trips / 54 days of phase 3 = 3 vendor trips per day

Assume 18 vendor trips per day for CAFO materials

Demolition - 2.03 short tons per cy concrete

700 cy \* 2.03 = 1421 tons of debris

Grading - 1000 cy poorly compacted soil export for Streambank Restoration

430 cy imported for Streambank Restoration

3,200 cy import for grading of drainage patterns (e.g., earthen berm)

Vehicle Trips - Assume 0.005 trips per day (2 trips per year) associated with annual maintenance of the CAFO system

No additional operational trips associated with project

Road Dust - Assume 90% paved roads (Rancho Mission Viejo Riding Park roads are not paved)

Area Coating -

Water And Wastewater -  $Eto * (water\ need\ value) * area\ (sf) * 0.62 / 0.75$

$0.2 * 0.8 * 87,120 * 0.62 / 0.75 = 11,523.072\ gals/year$

Round to 11,530 gals/year

Operational Off-Road Equipment - Two pumps and two flow meters (one for each CAFO tank) per Fuscoe Engineering construction details

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	300.00	153.00

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	30.00	174.00
tblConstructionPhase	NumDays	10.00	34.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	AcresOfGrading	174.00	14.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	430.00
tblGrading	MaterialImported	0.00	3,200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks
tblOffRoadEquipment	PhaseName		Site Preparation for Streambank Restoration
tblOffRoadEquipment	PhaseName		Installation of CAFO Tanks

## Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

tblOffRoadEquipment	PhaseName		Grading and Planting for Streambank Restoration
tblOffRoadEquipment	PhaseName		Arizona Crossing Removal
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	PhaseName		Trenching for CAFO Storm Drains
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	90
tblSolidWaste	SolidWasteGenerationRate	1.40	0.00
tblTripsAndVMT	HaulingTripNumber	141.00	0.00
tblTripsAndVMT	HaulingTripNumber	125.00	0.00
tblTripsAndVMT	HaulingTripNumber	454.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	116.00	18.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	298.00	50.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	5.0000e-003
tblWater	OutdoorWaterUseRate	19,421,146.00	11,530.00

## 2.0 Emissions Summary

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Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.0799	37.3459	28.5978	0.0539	8.7260	1.9486	10.6745	3.8441	1.8086	5.6527	0.0000	5,239.9356	5,239.9356	1.2129	0.0000	5,270.2574
2021	1.6902	17.9034	12.8453	0.0299	0.6463	0.7070	1.3533	0.1578	0.6504	0.8082	0.0000	2,911.4574	2,911.4574	0.7827	0.0000	2,931.0259
2022	1.8753	19.0697	14.0212	0.0353	0.6739	0.6896	1.3635	0.1813	0.6408	0.8221	0.0000	3,429.9441	3,429.9441	0.7841	0.0000	3,449.5475
<b>Maximum</b>	<b>4.0799</b>	<b>37.3459</b>	<b>28.5978</b>	<b>0.0539</b>	<b>8.7260</b>	<b>1.9486</b>	<b>10.6745</b>	<b>3.8441</b>	<b>1.8086</b>	<b>5.6527</b>	<b>0.0000</b>	<b>5,239.9356</b>	<b>5,239.9356</b>	<b>1.2129</b>	<b>0.0000</b>	<b>5,270.2574</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.0799	37.3459	28.5978	0.0539	8.7260	1.9486	10.6745	3.8441	1.8086	5.6527	0.0000	5,239.9356	5,239.9356	1.2129	0.0000	5,270.2574
2021	1.6902	17.9034	12.8453	0.0299	0.6463	0.7070	1.3533	0.1578	0.6504	0.8082	0.0000	2,911.4574	2,911.4574	0.7827	0.0000	2,931.0259
2022	1.8753	19.0697	14.0212	0.0353	0.6739	0.6896	1.3635	0.1813	0.6408	0.8221	0.0000	3,429.9441	3,429.9441	0.7841	0.0000	3,449.5475
<b>Maximum</b>	<b>4.0799</b>	<b>37.3459</b>	<b>28.5978</b>	<b>0.0539</b>	<b>8.7260</b>	<b>1.9486</b>	<b>10.6745</b>	<b>3.8441</b>	<b>1.8086</b>	<b>5.6527</b>	<b>0.0000</b>	<b>5,239.9356</b>	<b>5,239.9356</b>	<b>1.2129</b>	<b>0.0000</b>	<b>5,270.2574</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-004	3.6000e-004	1.3400e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5385	0.5385	2.0000e-005		0.5390
Offroad	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.069 1	1,246.069 1	0.0570		1,247.494 4
<b>Total</b>	<b>0.6924</b>	<b>5.5061</b>	<b>7.4536</b>	<b>0.0132</b>	<b>0.0484</b>	<b>0.2697</b>	<b>0.3181</b>	<b>4.9000e-003</b>	<b>0.2697</b>	<b>0.2746</b>		<b>1,246.611 2</b>	<b>1,246.611 2</b>	<b>0.0570</b>	<b>0.0000</b>	<b>1,248.037 1</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.0000e-004	3.6000e-004	1.3400e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5385	0.5385	2.0000e-005		0.5390
Offroad	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.0691	1,246.0691	0.0570		1,247.4944
<b>Total</b>	<b>0.6924</b>	<b>5.5061</b>	<b>7.4536</b>	<b>0.0132</b>	<b>0.0484</b>	<b>0.2697</b>	<b>0.3181</b>	<b>4.9000e-003</b>	<b>0.2697</b>	<b>0.2746</b>		<b>1,246.6112</b>	<b>1,246.6112</b>	<b>0.0570</b>	<b>0.0000</b>	<b>1,248.0371</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Arizona Crossing Removal	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation for Streambank Restoration	Site Preparation	7/1/2020	8/17/2020	5	34	
3	Grading and Planting for Streambank Restoration	Grading	8/18/2020	10/30/2020	5	54	
4	Trenching for CAFO Storm Drains	Trenching	11/1/2020	11/30/2020	5	21	
5	Excavation for CAFO Tanks	Grading	4/1/2021	11/30/2021	5	174	
6	Installation of CAFO Tanks	Building Construction	4/1/2022	11/1/2022	5	153	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Arizona Crossing Removal	Concrete/Industrial Saws	1	8.00	81	0.73
Arizona Crossing Removal	Excavators	1	8.00	158	0.38
Arizona Crossing Removal	Rubber Tired Dozers	1	8.00	247	0.40
Arizona Crossing Removal	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation for Streambank Restoration	Excavators	1	8.00	158	0.38
Site Preparation for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Planting for Streambank Restoration	Bore/Drill Rigs	1	8.00	221	0.50
Grading and Planting for Streambank Restoration	Plate Compactors	1	8.00	8	0.43
Grading and Planting for Streambank Restoration	Rubber Tired Dozers	1	8.00	247	0.40
Grading and Planting for Streambank Restoration	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching for CAFO Storm Drains	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching for CAFO Storm Drains	Trenchers	1	8.00	78	0.50
Excavation for CAFO Tanks	Excavators	1	8.00	158	0.38
Excavation for CAFO Tanks	Graders	2	8.00	187	0.41
Excavation for CAFO Tanks	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Installation of CAFO Tanks	Cement and Mortar Mixers	1	8.00	9	0.56
Installation of CAFO Tanks	Graders	2	8.00	187	0.41
Installation of CAFO Tanks	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Installation of CAFO Tanks	Welders	1	8.00	46	0.45

**Trips and VMT**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Arizona Crossing Removal	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation for Streambank Restoration	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Planting for Streambank Restoration	7	50.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching for CAFO Storm Drains	4	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Excavation for CAFO Tanks	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Installation of CAFO Tanks	7	50.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Arizona Crossing Removal - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5204	0.0000	1.5204	0.2302	0.0000	0.2302			0.0000			0.0000
Off-Road	1.9522	19.1486	13.3657	0.0231		1.0031	1.0031		0.9387	0.9387		2,220.894 1	2,220.894 1	0.5642		2,234.997 7
<b>Total</b>	<b>1.9522</b>	<b>19.1486</b>	<b>13.3657</b>	<b>0.0231</b>	<b>1.5204</b>	<b>1.0031</b>	<b>2.5235</b>	<b>0.2302</b>	<b>0.9387</b>	<b>1.1689</b>		<b>2,220.894 1</b>	<b>2,220.894 1</b>	<b>0.5642</b>		<b>2,234.997 7</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.2 Arizona Crossing Removal - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5204	0.0000	1.5204	0.2302	0.0000	0.2302			0.0000			0.0000
Off-Road	1.9522	19.1486	13.3657	0.0231		1.0031	1.0031		0.9387	0.9387	0.0000	2,220.8941	2,220.8941	0.5642		2,234.9977
<b>Total</b>	<b>1.9522</b>	<b>19.1486</b>	<b>13.3657</b>	<b>0.0231</b>	<b>1.5204</b>	<b>1.0031</b>	<b>2.5235</b>	<b>0.2302</b>	<b>0.9387</b>	<b>1.1689</b>	<b>0.0000</b>	<b>2,220.8941</b>	<b>2,220.8941</b>	<b>0.5642</b>		<b>2,234.9977</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.2 Arizona Crossing Removal - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0878	0.0000	6.0878	3.3175	0.0000	3.3175			0.0000			0.0000
Off-Road	1.7435	17.9552	11.9588	0.0199		0.9381	0.9381		0.8630	0.8630		1,928.9980	1,928.9980	0.6239		1,944.5949
<b>Total</b>	<b>1.7435</b>	<b>17.9552</b>	<b>11.9588</b>	<b>0.0199</b>	<b>6.0878</b>	<b>0.9381</b>	<b>7.0259</b>	<b>3.3175</b>	<b>0.8630</b>	<b>4.1805</b>		<b>1,928.9980</b>	<b>1,928.9980</b>	<b>0.6239</b>		<b>1,944.5949</b>



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.3 Site Preparation for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0878	0.0000	6.0878	3.3175	0.0000	3.3175			0.0000			0.0000
Off-Road	1.7435	17.9552	11.9588	0.0199		0.9381	0.9381		0.8630	0.8630	0.0000	1,928.9979	1,928.9979	0.6239		1,944.5949
<b>Total</b>	<b>1.7435</b>	<b>17.9552</b>	<b>11.9588</b>	<b>0.0199</b>	<b>6.0878</b>	<b>0.9381</b>	<b>7.0259</b>	<b>3.3175</b>	<b>0.8630</b>	<b>4.1805</b>	<b>0.0000</b>	<b>1,928.9979</b>	<b>1,928.9979</b>	<b>0.6239</b>		<b>1,944.5949</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.3 Site Preparation for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0623	0.0000	6.0623	3.3146	0.0000	3.3146			0.0000			0.0000
Off-Road	1.8161	19.3161	10.9822	0.0246		0.9325	0.9325		0.8587	0.8587		2,373.1658	2,373.1658	0.7600		2,392.1648
<b>Total</b>	<b>1.8161</b>	<b>19.3161</b>	<b>10.9822</b>	<b>0.0246</b>	<b>6.0623</b>	<b>0.9325</b>	<b>6.9947</b>	<b>3.3146</b>	<b>0.8587</b>	<b>4.1733</b>		<b>2,373.1658</b>	<b>2,373.1658</b>	<b>0.7600</b>		<b>2,392.1648</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5800e-003	0.3125	0.0825	7.5000e-004	0.0192	1.6300e-003	0.0208	5.5200e-003	1.5600e-003	7.0800e-003		81.3387	81.3387	6.5800e-003		81.5031
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.2017</b>	<b>0.4336</b>	<b>1.7191</b>	<b>6.2200e-003</b>	<b>0.5781</b>	<b>5.3300e-003</b>	<b>0.5834</b>	<b>0.1537</b>	<b>4.9600e-003</b>	<b>0.1587</b>		<b>626.3605</b>	<b>626.3605</b>	<b>0.0190</b>		<b>626.8356</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0623	0.0000	6.0623	3.3146	0.0000	3.3146			0.0000			0.0000
Off-Road	1.8161	19.3161	10.9822	0.0246		0.9325	0.9325		0.8587	0.8587	0.0000	2,373.1658	2,373.1658	0.7600		2,392.1647
<b>Total</b>	<b>1.8161</b>	<b>19.3161</b>	<b>10.9822</b>	<b>0.0246</b>	<b>6.0623</b>	<b>0.9325</b>	<b>6.9947</b>	<b>3.3146</b>	<b>0.8587</b>	<b>4.1733</b>	<b>0.0000</b>	<b>2,373.1658</b>	<b>2,373.1658</b>	<b>0.7600</b>		<b>2,392.1647</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.4 Grading and Planting for Streambank Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5800e-003	0.3125	0.0825	7.5000e-004	0.0192	1.6300e-003	0.0208	5.5200e-003	1.5600e-003	7.0800e-003		81.3387	81.3387	6.5800e-003		81.5031
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.2017</b>	<b>0.4336</b>	<b>1.7191</b>	<b>6.2200e-003</b>	<b>0.5781</b>	<b>5.3300e-003</b>	<b>0.5834</b>	<b>0.1537</b>	<b>4.9600e-003</b>	<b>0.1587</b>		<b>626.3605</b>	<b>626.3605</b>	<b>0.0190</b>		<b>626.8356</b>

**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0483	10.1120	9.4754	0.0127		0.6836	0.6836		0.6289	0.6289		1,229.1176	1,229.1176	0.3975		1,239.0556
<b>Total</b>	<b>1.0483</b>	<b>10.1120</b>	<b>9.4754</b>	<b>0.0127</b>		<b>0.6836</b>	<b>0.6836</b>		<b>0.6289</b>	<b>0.6289</b>		<b>1,229.1176</b>	<b>1,229.1176</b>	<b>0.3975</b>		<b>1,239.0556</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.5 Trenching for CAFO Storm Drains - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0483	10.1120	9.4754	0.0127		0.6836	0.6836		0.6289	0.6289	0.0000	1,229.1176	1,229.1176	0.3975		1,239.0556
<b>Total</b>	<b>1.0483</b>	<b>10.1120</b>	<b>9.4754</b>	<b>0.0127</b>		<b>0.6836</b>	<b>0.6836</b>		<b>0.6289</b>	<b>0.6289</b>	<b>0.0000</b>	<b>1,229.1176</b>	<b>1,229.1176</b>	<b>0.3975</b>		<b>1,239.0556</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.5 Trenching for CAFO Storm Drains - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1211	1.6366	5.4700e-003	0.5589	3.7000e-003	0.5626	0.1482	3.4000e-003	0.1516		545.0218	545.0218	0.0124		545.3324
<b>Total</b>	<b>0.1922</b>	<b>0.1211</b>	<b>1.6366</b>	<b>5.4700e-003</b>	<b>0.5589</b>	<b>3.7000e-003</b>	<b>0.5626</b>	<b>0.1482</b>	<b>3.4000e-003</b>	<b>0.1516</b>		<b>545.0218</b>	<b>545.0218</b>	<b>0.0124</b>		<b>545.3324</b>

**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	9.5300e-003	0.0000	9.5300e-003			0.0000			0.0000
Off-Road	1.5097	17.7942	11.3267	0.0246		0.7034	0.7034		0.6471	0.6471		2,385.3604	2,385.3604	0.7715		2,404.6472
<b>Total</b>	<b>1.5097</b>	<b>17.7942</b>	<b>11.3267</b>	<b>0.0246</b>	<b>0.0874</b>	<b>0.7034</b>	<b>0.7908</b>	<b>9.5300e-003</b>	<b>0.6471</b>	<b>0.6566</b>		<b>2,385.3604</b>	<b>2,385.3604</b>	<b>0.7715</b>		<b>2,404.6472</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.6 Excavation for CAFO Tanks - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1805	0.1092	1.5186	5.2800e-003	0.5589	3.6200e-003	0.5625	0.1482	3.3300e-003	0.1516		526.0971	526.0971	0.0113		526.3787
<b>Total</b>	<b>0.1805</b>	<b>0.1092</b>	<b>1.5186</b>	<b>5.2800e-003</b>	<b>0.5589</b>	<b>3.6200e-003</b>	<b>0.5625</b>	<b>0.1482</b>	<b>3.3300e-003</b>	<b>0.1516</b>		<b>526.0971</b>	<b>526.0971</b>	<b>0.0113</b>		<b>526.3787</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	9.5300e-003	0.0000	9.5300e-003			0.0000			0.0000
Off-Road	1.5097	17.7942	11.3267	0.0246		0.7034	0.7034		0.6471	0.6471	0.0000	2,385.3603	2,385.3603	0.7715		2,404.6472
<b>Total</b>	<b>1.5097</b>	<b>17.7942</b>	<b>11.3267</b>	<b>0.0246</b>	<b>0.0874</b>	<b>0.7034</b>	<b>0.7908</b>	<b>9.5300e-003</b>	<b>0.6471</b>	<b>0.6566</b>	<b>0.0000</b>	<b>2,385.3603</b>	<b>2,385.3603</b>	<b>0.7715</b>		<b>2,404.6472</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.6 Excavation for CAFO Tanks - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1805	0.1092	1.5186	5.2800e-003	0.5589	3.6200e-003	0.5625	0.1482	3.3300e-003	0.1516		526.0971	526.0971	0.0113		526.3787
<b>Total</b>	<b>0.1805</b>	<b>0.1092</b>	<b>1.5186</b>	<b>5.2800e-003</b>	<b>0.5589</b>	<b>3.6200e-003</b>	<b>0.5625</b>	<b>0.1482</b>	<b>3.3300e-003</b>	<b>0.1516</b>		<b>526.0971</b>	<b>526.0971</b>	<b>0.0113</b>		<b>526.3787</b>

**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6596	17.3732	12.1616	0.0258		0.6830	0.6830		0.6346	0.6346		2,444.2688	2,444.2688	0.7372		2,462.6977
<b>Total</b>	<b>1.6596</b>	<b>17.3732</b>	<b>12.1616</b>	<b>0.0258</b>		<b>0.6830</b>	<b>0.6830</b>		<b>0.6346</b>	<b>0.6346</b>		<b>2,444.2688</b>	<b>2,444.2688</b>	<b>0.7372</b>		<b>2,462.6977</b>



Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.7 Installation of CAFO Tanks - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0452	1.5976	0.4422	4.3900e-003	0.1150	3.0500e-003	0.1181	0.0331	2.9200e-003	0.0360		479.0747	479.0747	0.0368		479.9935
Worker	0.1706	0.0989	1.4174	5.0800e-003	0.5589	3.5500e-003	0.5624	0.1482	3.2700e-003	0.1515		506.6006	506.6006	0.0102		506.8564
<b>Total</b>	<b>0.2157</b>	<b>1.6965</b>	<b>1.8596</b>	<b>9.4700e-003</b>	<b>0.6739</b>	<b>6.6000e-003</b>	<b>0.6805</b>	<b>0.1813</b>	<b>6.1900e-003</b>	<b>0.1875</b>		<b>985.6753</b>	<b>985.6753</b>	<b>0.0470</b>		<b>986.8499</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6596	17.3732	12.1616	0.0258		0.6830	0.6830		0.6346	0.6346	0.0000	2,444.2688	2,444.2688	0.7372		2,462.6977
<b>Total</b>	<b>1.6596</b>	<b>17.3732</b>	<b>12.1616</b>	<b>0.0258</b>		<b>0.6830</b>	<b>0.6830</b>		<b>0.6346</b>	<b>0.6346</b>	<b>0.0000</b>	<b>2,444.2688</b>	<b>2,444.2688</b>	<b>0.7372</b>		<b>2,462.6977</b>

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**3.7 Installation of CAFO Tanks - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0452	1.5976	0.4422	4.3900e-003	0.1150	3.0500e-003	0.1181	0.0331	2.9200e-003	0.0360		479.0747	479.0747	0.0368		479.9935
Worker	0.1706	0.0989	1.4174	5.0800e-003	0.5589	3.5500e-003	0.5624	0.1482	3.2700e-003	0.1515		506.6006	506.6006	0.0102		506.8564
<b>Total</b>	<b>0.2157</b>	<b>1.6965</b>	<b>1.8596</b>	<b>9.4700e-003</b>	<b>0.6739</b>	<b>6.6000e-003</b>	<b>0.6805</b>	<b>0.1813</b>	<b>6.1900e-003</b>	<b>0.1875</b>		<b>985.6753</b>	<b>985.6753</b>	<b>0.0470</b>		<b>986.8499</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-004	3.6000e-004	1.3400e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5385	0.5385	2.0000e-005		0.5390
Unmitigated	1.0000e-004	3.6000e-004	1.3400e-003	1.0000e-005	0.0484	0.0000	0.0484	4.9000e-003	0.0000	4.9000e-003		0.5385	0.5385	2.0000e-005		0.5390

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.08	0.00	0.00	168	168
Total	0.08	0.00	0.00	168	168

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
Unmitigated	0.0367	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
<b>Total</b>	<b>0.0367</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>1.0000e-005</b>		<b>3.8000e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.5700e-003	3.5700e-003	1.0000e-005		3.8000e-003
<b>Total</b>	<b>0.0367</b>	<b>2.0000e-005</b>	<b>1.6600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>1.0000e-005</b>		<b>3.8000e-003</b>

**7.0 Water Detail**

Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pumps	2	8.00	260	84	0.74	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Pumps	0.6556	5.5057	7.4506	0.0132		0.2697	0.2697		0.2697	0.2697		1,246.0691	1,246.0691	0.0570		1,247.4944
<b>Total</b>	<b>0.6556</b>	<b>5.5057</b>	<b>7.4506</b>	<b>0.0132</b>		<b>0.2697</b>	<b>0.2697</b>		<b>0.2697</b>	<b>0.2697</b>		<b>1,246.0691</b>	<b>1,246.0691</b>	<b>0.0570</b>		<b>1,247.4944</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Rancho Mission Viejo Riding Park Improvements Project - Orange County, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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